

WE CLAIM:

1. An isolated polynucleotide encoding a receptor wherein said polynucleotide is selected
5 from the group consisting of:

- a) a polynucleotide encoding a polypeptide having the deduced amino acid sequence
of Figure 1 or a fragment, analog or derivative of said polypeptide; and
- 10 b) a polynucleotide capable of hybridising to and which is at least 70% identical to
the polynucleotide of Figure 1.

2. An isolated polynucleotide according to claim 1, wherein the polynucleotide is the
polynucleotide of Figure 1.

3. An isolated polynucleotide according to claim 1, wherein the polynucleotide encodes a
polypeptide having the deduced amino acid sequence of Figure 1 or a fragment, analog or
derivative of said polypeptide.

20 4. An isolated polynucleotide comprising a region that encodes a variant of the
polynucleotide of Figure 1, said variant sharing at least 95% amino acid identity with said
Figure 1 polynucleotide

5. A recombinant DNA construct having incorporated therein a polynucleotide as defined in
25 any one of claims 1 to 4.

6. A cell that has been selected to produce a receptor encoded by the polynucleotide as
defined in any one of claims 1 to 4.

7. A cell according to claim 6 wherein said cell is genetically engineered to produce said receptor by incorporating expressibly therein a recombinant construct as defined in claim 5.

8. A cell according to claim 6 wherein said receptor is expressed endogenously.

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9. A cell as defined in claim 6 which is a mammalian cell.

10. A receptor-binding membrane preparation derived from a cell as defined in claim 6.

10 11. A method of assaying a test ligand for binding with a receptor encoded by the polynucleotide as defined in any one of claims 1 to 4, which comprises the steps of incubating the test ligand under appropriate conditions with a receptor-producing cell as defined in claim 6, or with membrane preparation derived therefrom, and then determining whether binding between said receptor and said test ligand has occurred.

15 12. A method according to claim 11 wherein the binding between said receptor and said test ligand is determined by measuring a functional receptor response.

20 13. A method as defined in claim 12, wherein said functional receptor response is a second messenger response.

14. A method as defined in claim 13, wherein said second messenger is selected from the group consisting of intracellular cAMP and intracellular calcium ion.

25 15. A receptor encoded by the polynucleotide as defined in any one of claims 1 to 4, in an isolated form essentially free from other proteins of human origin.

16. A ligand-binding fragment of a receptor encoded by the polynucleotide defined in any one of claims 1 to 4.

17. An antibody which binds a mammalian receptor encoded by the polynucleotide defined in any one of claims 1 to 4.

5 18. An immunogenic fragment of a human receptor wherein said receptor is encoded by the polynucleotide defined in any one of claims 1 to 4.

19. An oligonucleotide which comprises at least about 17 nucleic acids and which selectively hybridizes with a polynucleotide defined in claim 1 or complement thereof.

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